



1/25/2023

Southwire Company

Conductor: 795.0 kcmil 37 Strand AAC "Arbutus"

Area = 0.6245 in², Diameter = 1.026 in, Weight = 0.745 lb/ft, RBS = 13900 lb
Notes =

Stress-strain data from Chart No. 1-1049

Chart Notes: 37 Strand AAC/1350-H19. Contact your conductor manufacturer to
verify stress-strain coefficients.

Limits and Outputs in Average Tensions

Span = 239.00 ft

NESC 261.H.1.b Medium Load Zone

Creep governs the final sag

Loading Limits

Cond. °F	Temp °C	Ice in	Wind lb/ft ²	K lb/ft	Limit	Usage
15.0	-9.4	0.25G	4.00	0.20	60.0 %	Initial
15.0	-9.4	0.00	0.00	0.00	35.0 %	Initial
15.0	-9.4	0.00	0.00	0.00	25.0 %*	Final
60.0	15.6	0.00	0.00	0.00		Creep

Design Points

Cond. °F	Temp °C	Ice in	Wind lb/ft ²	K lb/ft	Weight lb/ft	Final		Initial	
						Sag ft	Tension lb	Sag ft	Tension lb
15.0	-9.4	0.25G	4.00	0.20	1.450	2.40	4313	2.06	5015
32.0	0.0	0.25G	0.00	0.00	1.142	2.49	3276	1.96	4161
0.0	-17.8	0.00	0.00	0.00	0.745	1.24	4286	1.03	5162
15.0	-9.4	0.00	0.00	0.00	0.745	1.53	3475*	1.17	4536
30.0	-1.1	0.00	0.00	0.00	0.745	1.91	2787	1.36	3909
60.0	15.6	0.00	0.00	0.00	0.745	2.85	1868	1.94	2747
90.0	32.2	0.00	0.00	0.00	0.745	3.80	1401	2.78	1914
120.0	48.9	0.00	0.00	0.00	0.745	4.65	1145	3.69	1441
167.0	75.0	0.00	0.00	0.00	0.745	5.80	920	4.98	1070
212.0	100.0	0.00	0.00	0.00	0.745	6.74	791	6.02	885

* Design Condition

G Glazed Ice Density of 57.0 lb/ft³

Certain information such as the data, opinions or recommendations set forth herein or given by Southwire representatives, is intended as a general guide only. Each installation of overhead electrical conductor and/or conductor accessories involves special conditions creating problems that require individual solutions and, therefore, the recipient of this information has the sole responsibility in connection with the use of the information. Southwire does not assume any liability in connection with such information.



1/25/2023

Southwire Company

Conductor: 556.5 kcmil 19 Strand AAC "Dahlia"

Area = 0.4369 in², Diameter = 0.856 in, Weight = 0.521 lb/ft, RBS = 9750 lb
Notes =

Stress-strain data from Chart No. 1-945

Chart Notes: 19 Strand AAC/1350-H19. Contact your conductor manufacturer to verify stress-strain coefficients.

Limits and Outputs in Average Tensions

Span = 239.00 ft

NESC 261.H.1.b Medium Load Zone

Creep governs the final sag

Loading Limits						Usage
Cond. Temp °F	Ice °C	Wind in	K lb/ft²	Limit lb/ft	Limit	
15.0	-9.4	0.25G	4.00	0.20	60.0 %	Initial
15.0	-9.4	0.00	0.00	0.00	35.0 %*	Initial
15.0	-9.4	0.00	0.00	0.00	25.0 %	Final
60.0	15.6	0.00	0.00	0.00		Creep

Design Points						Final		Initial	
Cond. Temp °F	Ice °C	Wind in	K lb/ft²	Weight lb/ft	Sag ft	Tension lb	Sag ft	Tension lb	
15.0	-9.4	0.25G	4.00	0.20	1.176	2.64	2.18	3852	
32.0	0.0	0.25G	0.00	0.00	0.865	2.64	1.96	3156	
0.0	-17.8	0.00	0.00	0.00	0.521	1.26	0.96	3885	
15.0	-9.4	0.00	0.00	0.00	0.521	1.57	1.09	3413*	
30.0	-1.1	0.00	0.00	0.00	0.521	1.97	1.27	2937	
60.0	15.6	0.00	0.00	0.00	0.521	2.95	1.81	2052	
90.0	32.2	0.00	0.00	0.00	0.521	3.90	2.64	1410	
120.0	48.9	0.00	0.00	0.00	0.521	4.75	3.56	1046	
167.0	75.0	0.00	0.00	0.00	0.521	5.88	4.87	766	
212.0	100.0	0.00	0.00	0.00	0.521	6.82	5.92	629	

* Design Condition

G Glazed Ice Density of 57.0 lb/ft³

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